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ABSTRACT

This paper explores the opinions of teachers and principals in Bolu, Turkey, with regard to the organizational health of their schools. It outlines an organizational inventory to determine each school's health profile and examines whether teachers' opinions of the organizational health of their schools are affected by teachers' gender, branch, job experience, working years at the same schools, and level of education. Following a pilot study, an organizational health inventory was developed across five dimensions: organizational leadership, organizational integrity, environmental interaction, organizational identity, and organizational product. The inventory was then distributed to 810 teachers and administrators; 485 questionnaires were returned and used for data analysis. The results revealed a significant difference between the opinions of teachers and administrators as they relate to organizational leadership, organizational integrity, internal and external interaction, and organizational products. However, there was no significant difference between the two groups on organizational identity. An important finding was the difference in opinions regarding organizational health. It suggests that administrators can look at the organizational health profile of their schools to obtain clues on problems and matters requiring change. It is recommended that schools with low health scores develop improvement plans. (Contains 26 references.) (RJM)

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ORGANIZATIONAL HEALTH OF THE SECONDARY SCHOOLS IN TURKEY AND CHANGES NEEDED

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ABSTRACT

The main purpose of this study was to find out opinions of teachers and principals related to organizational health of their schools in Bolu, Turkey. Another aim of this study was to develop an organizational health inventory to determine each school's health profile. The final aim of this study was to find out if there is a significant difference between the opinions of teachers related to organizational health of their schools, with respect to their sex, branch, job experience, working years at the same school, and level of education.

After the pilot study, the Organizational Health Inventory was developed across five dimensions: organizational leadership, organizational integrity, environmental interaction, organizational identity, and organizational product. The questionnaire stabilized with 53 items and was administered to 810 teachers and administrators in order to learn their opinions about the dimensions of organizational health in their schools. A total of 485 questionnaires were used for data analysis. T-test was used in order to test if there was a significance difference between teachers' and administrators' opinions, and teachers' sex related to dimensions. One-way analysis of variance was used in order to test other variables like branch, job experience, working years at the same school, and educational level of teachers.

It was found that there is a significant difference between the opinions of teachers and administrators related to the organizational health of their schools. The results showed that there is a significant difference between the opinions of teachers and principals related to organizational leadership ($t=0.000$ $p<0.05$), organizational integrity ($t=0.001$, $p<0.05$), internal and external interaction ($t=0.004$, $p<0.05$), and organizational products ($t=0.01$, $p<0.05$). On the other hand, it was found that there is no significant difference between the opinions of teachers and administrators related to organizational identity ($t=0.07$, $p>0.05$).

ORGANIZATIONAL HEALTH OF THE SECONDARY SCHOOLS IN TURKEY AND CHANGES NEEDED

Introduction

The concept of organizational health was first mentioned by Miles as "the school system's ability not only to function effectively, but to develop and grow into a more fully-functioning system" (Miles, 1969, p.378). Miles used human health as metaphor for organizational health. He introduced ten dimensions of organizational health under three basic topics. The first three dimensions relate to task: goal focus, communication adequacy, optimal power equalization. The second group of dimensions relates to the internal state of the system and its inhabitants' "maintenance" needs. These are resource utilization, cohesiveness, and morale. The final three dimensions are described under the growth and change title: innovations, autonomy, adaptation, and problem solving adequacy. Kimston & Sonnebend (1973, p.544) summarizes these dimensions as follows:

1. *Goal Focus.* The goals of the organization are reasonably clear to the organization members and reasonably well accepted by them.
2. *Communication Adequacy.* There is relatively distortion-free communication across the organization and to and from the surrounding environment.
3. *Optimal Power Equalization.* The distribution of influence is relatively equitable.
4. *Resource Utilization.* Personnel are used effectively.
5. *Cohesiveness.* The organization knows "who it is."
6. *Moral.* A summated set of individual sentiments, centering around feelings of well-being, satisfaction, and pleasure.
7. *Innovativeness.* Tends to invent new procedures, move toward new goals, produce new kinds of products, diversity itself, and become more rather than less differentiated over time.
8. *Autonomy.* Would not respond passively to demands from the outside and would not respond destructively or rebelliously to perceived demands.
9. *Adaptation.* The system's ability to bring about corrective change in itself is faster than the change cycle in the surrounding environment.
10. *Problem-Solving Adequacy.* Has well developed structure and procedures for sensing the existence of problems, for investing possible solutions, for implemerting them, and four evaluating their effectiveness.

Childers (1983) claims that "organizations, like the people who compromise them, can be either healthy or sick. The healthy organization is functional, while the sick

organization is dysfunctional" (p. 4). Ellsworth & Rickard (1978) also use human health as a metaphor for school health, but he says that it is more difficult to determine the school's pulse "to reaffirm that 'our schools' is alive and healthy" (p. 1). Neugebaurer (1990) used the same metaphor and said that "for the body to be healthy, a myriad of bodily functions must operate in perfect harmony. Likewise, for an organization to be healthy, a complex array of interpersonal and administrative functions must be addressed simultaneously" (p. 38).

One of the essential characteristics of school leader is the educational assessment in order to improve the quality of schooling and raise the level of student achievement. (Wallace, 1992). According to Wallace (1992), the educational leader must be "skilled in the use of various measures that provide indicators of the health and productivity of a school or district" (p.11). Hoy, Tarter, & Kottkamp (1991) summarized the implications for practitioners and scholars of administrations of the Organizational Health Inventory. The implications for the practitioners includes:

- To assess school health and climate before beginning change efforts.
- To improve instructional effectiveness indirectly through the development of an open, healthy, and trustful climate.
- To use OHI for the continuing assessments of their own administrative practice.

Implications from OHI research can be helpful scholars who are searching the following questions:

- To what extent are the OCDQ and OHI useful tools in the prediction of school effectiveness?
- What conditions promote healthy and open schools?
- What are the elements that combine or intervene in the relationship of climate or health to effectiveness?

The main aim of this study was to find out the opinions of teachers and principals related to organizational health of their schools in Bolu, Turkey. Another aim of this study was to develop an organizational health inventory to determine each school's health profile. The final aim of this study was to find out if there is a significant difference between the opinions of teachers relating to organizational health of their schools with respect to their sex, branch, job experience, working years at the same school, and level of education.

Related Literature Review

Organizational health has been suggested to use for change and innovation of the schools by Miles (1965), Kimston & Sonnabend (1973), Kimston & Sonnabend (1975), Chicelli (1975), Ellsworth & Rickard (1978), and Clark & Fairman (1983). Later on, some organizational health questionnaires have been developed to measure the organizational health of schools.

Miles (1975) claims that while he attempted to measure most of the dimensions, he could not measure all of them. Following Miles, Kimston & Sonnabend (1973) and Kimston & Sonnabend (1975) developed a questionnaire by using Miles' dimensions, but they couldn't measure all the dimensions either. They found five dimensions: decison-making, interpersonal relationship, innovativeness, autonomy, and school-community relation. Ellsworth & Rickard (1978) collected items related to students, parents, teachers, and programs as indicators of organizational health. Hoy & Feldman (1987) developed the Organizational Health Inventory in seven dimensions under institutional,

managerial, and technical levels. These are institutional integrity, initiating structure, resource allocation, principal influence, consideration, academic emphasis and morale.

Neughauer (1990) developed an organizational health checklist by collecting items from different organizational health questionnaires to mesa the child care center effectiveness. Dimensions included in the questionnaire are planning and evaluation, motivation and control, group functioning, staff development, decision-making and problem solving, financial management, and environmental interaction. Those dimensions are meaningful and provide insight for administrators in several ways. First, they represent the optimum level of functioning for a healthy organization and will help administrators see the weaknesses and strengths of their organizations. Second, they can give administrators a different perspective (like outsiders) to reexamine their organizations. Nevertheless, Neughauer (1990) goes further to suggest either researchers or practitioners be cautious when conducting it. They may use also other data to decide for their organizations to make any changes.

Researchers also went further to develop inventories for different levels of schools to examine the health and the climate of these particular organizations. Hoy, Feldman, and Kottkamp (1991) developed the Organizational Health Inventory for elementary (OHI-E) and for secondary schools (OHI-S), and Hoy, Sabo, & Associates (1998) for middle schools.

Organizational health questionnaires have been used for either theory/research, and practice. Childers (1985) claims that school principals are responsible of enhancing "the organizational health and productivity of their schools" (p. 5). Childers (1985, p. 5-

7) suggests that in order to enhance the health of their schools, school principals should follow these steps:

- Reexamining their role and function in order to enhance the health of their school.
- Examining the current professional skills of their staff by applying an inventory make sure that their staff has necessary skills.
- Reexamining the definitions of the 10 factors of organizational health. Identifying two strong and two weak dimensions of their schools.
- Observe and record the organizational behavior that supports their beliefs about the strengths and weakness of the schools they select. Spending time to do this.
- If their recordings suggests that the organizational health does not need improvement, then share this observation with the educational leaders of those buildings and encourage them to continue providing such effective leadership.
- Scheduling a conference to confer with the educational leaders to those buildings and determine if they, too, think that the organizational health concept needs further consideration.
- Collecting organizational health data by using Organizational Health Questionnaire to provide feedback.
- Analyzing these data, and interpret it with building's leaders.
- Determining organizational problems and solving them.

Childers (1985) finishes his argument that "the organizational health of a school has important implications for the performances of the employees and students. It can be enhanced by a systematic diagnosis and by the development and implementation of an intervention of an intervention plan" (p. 7). To Childers, as a result of following these steps school principals can bring their schools to the optimal condition of health and vitality.

Childers & Fairman (1986) claim that since school counselors perceive themselves as agents of change in individual and group behavior, they can be an effective facilitator for enhancing organizational health. Childers & Fairman (1986) conclude that:

> School counselors have the experience, unique organizational placement, and skills to help principals take a proactive stance toward improving the

> organizational placement, and skills to help principals take a proactive stance toward improving the organizational health of school (p.336).

Determining the organizational health of the schools is not only helpful for the administrative purpose, but also for effective teachers and teaching. Hoy & Woolfolk (1993) examined the relationship between two dimensions of teacher efficacy (general and personal) and aspects of a healthy school climate. They found that a healthy school climate is conductive to the development of teachers' beliefs that they can influence student learning.

Polansky & Jones (1988) conducted a study to find out if there is any statistically significant relationship existing between selected organizational health variables (i.e., morale, adaptiveness, optimal power equalization, resource utilization, cohesiveness, leadership and planning) and selected financial data, like expenditure per pupil, pupil services, maximum, and minimum teacher salary etc. They found that there is a relationship between educational spending and the well being of a school organization.

Organizational health as a concept has been used not only for the purpose of research but also for the practical reasons in different fields of education.

Methodology

Population and sample

The population of this study consisted of 835 teachers and administrators (principals, vise principals, and assistant principals) who worked in 34 high schools in Bolu, Turkey. One of the schools didn't participate to this study, so the total population was 810 teachers and principals. A total of 485 respondents sent the questionnaires.

First, the number and addresses of high schools included vocational high schools gathered from the Directorate of National Education of Bolu by the researcher. For the pilot study, 10 schools were randomly selected from 33 high schools, and from those schools, 418 teachers and administrators participated in the pilot study. The distribution of participants according to their sex, branch, level of education, job experience and working year at the same schools are as follows.

Table 1

Distribution of participants according to their sex

SEX	Number of Teachers	(%)	Number of Administrators	(%)	TOTAL	(%)
Female	142	35.0	11	13.9	153	31.5
Male	262	64.0	68	86.1	330	68.1
Missing value	2	0.5	---	---	2	0.4
TOTAL	406	100.0	79	100.0	485	100.0

Table 2

Distribution of participants according to their job experience

YEARS	Number of Teachers	(%)	Number of Administrators	(%)	TOTAL	(%)
0-5	137	33.7	27	34.2	164	33.8
6-11	80	19.7	25	31.6	105	21.7
12-17	91	22.4	15	19.0	106	21.8
18-23	74	18.2	8	10.1	82	16.9
24-up	22	5.4	4	5.1	26	5.4
Missing value	2	0.5	---	---	2	0.4
TOTAL	406	100.0	79	100.0	485	100.0

Table 3

Distribution of participants according to their branch

BRANCH	Number of Teachers	(%)	Number of Administrators	(%)	TOTAL	(%)
Mathematics	38	9.4	5	6.3	43	8.9
Social Studies	105	25.8	25	31.6	130	26.9
Natural Sciences	54	13.2	9	11.4	63	12.9
Vocational	146	36.0	33	41.8	179	36.9
Ability	23	5.7	1	1.3	24	4.9
Missing value	40	9.9	6	7.6	46	9.5
TOTAL	406	100.0	79	100.0	485	100.0

Table 4

Distribution of participants according to their level of education

LEVEL OF EDUCATION	Number of Teachers	(%)	Number of Administrators	(%)	TOTAL	(%)
Teachers' school (high)	2	0.6	---	---	2	0.4
2-3 years college	68	16.7	15	19.0	83	17.1
4 years faculty	325	80.0	61	77.2	386	79.6
Master	8	2.0	3	3.8	11	2.3
Doctorate	---	---	---	---	---	---
Others	2	0.5	---	---	2	0.4
Missing Values	1	0.2	---	---	1	0.2
TOTAL	406	100.0	79	100.0	485	100.0

Table 5

Distribution of participants according to their working years at the same school

WORKING YEARS	Number of Teachers	(%)	Number of Administrators	(%)	TOTAL	(%)
0-3	204	50.2	28	35.4	232	47.8
4-7	90	22.2	21	26.6	111	22.9
8-11	42	10.2	10	12.7	52	10.8
12-15	21	5.2	8	10.1	29	5.9
16-19	31	7.6	8	10.1	39	8.0
20 and up	10	2.5	1	1.3	11	2.3
Missing value	8	2.0	3	3.8	11	2.3
TOTAL	406	100.0	79	100.0	485	100.0

The Instrument

The Organizational Health Inventory (OHI) is another instrument to evaluate the climate of schools. Rather than focusing on the openness of the climate, the OHI describe the health and well-being of behavior and interactions in schools. A healthy school is described as the school in which the institutional, managerial, and technical levels are in harmony. The school meets functional needs and successfully copes with disruptive external forces and directs its energies towards its mission. Each dimension of health was selected to represent the basic needs of the schools: to adapt to environmental demands, to achieve goals, to satisfy participant needs, and to create cohesiveness (Hoy, Sabo, & Associates (1998); Barnes, Hunnum, & Hoffman (1998); Hoy & Tarter (1997); Hoy & Hannum (1997); Hoy & Woolfolk (1993); Hoy, Tarter, & Kottkamp (1991); Hoy, Tarter, & Bliss (1990); Tarter, Hoy & Kottkamp (1990), and Hoy & Feldman (1987).

The conducted Organizational Health Inventory was developed by the researcher in order to determine the organizational health of the secondary schools in Bolu. In order to prepare the item pool, the literature was first reviewed and all organizational health

inventories and studies were consulted. After these investigations, 122 items were written under six dimension of organizational health by the researcher. These dimensions include organizational integrity, organizational leadership, organizational identity, internal interaction, environmental interaction, and organizational product. While these items were written, a healthy person was used as a metaphor that a healthy person is expected to have an identity, to have healthy relations with external environment, as well as an internal environment like having conflict, but not being self-destructive. In addition, a healthy person should lead himself and herself towards his/her goals. Finally, a healthy person is expected to give healthy products, either in his/her personal life or professional life.

First, these items were reviewed with the researcher's advisor Prof. Dr. Ibrahim Ethem Basaran at Ankara University and the item size was reduced from 122 to 104. For the face validity, these items were sent to 12 scholars who were working at three different departments of educational administration at three different universities in Turkey. After having their opinions, the item size stabilized to 100 items for the pilot study.

The questionnaire consisted of two parts. In the first part, there were demographic questions related to the participants' sex, level of education, job experience, branch, and years of working at the same school. In the second part, there were 100 items relating to the organizational health of the secondary schools. These items were sent to 418 participants who were asked to indicate the most appropriate answer from the following Likert scale responses: very often, sometimes, rarely, and never.

Validity and Reliability of the Organizational Health Inventory

The OHI was sent to the 418 participants from randomly selected from10 schools. Out of questionnaires sent out, 250 questionnaires were returned. Since 7 of them were not completed appropriately, 243 of them were processed. For the reliability, Cronbach alpha was found as .95.

In this study, face validity was first determined by asking for the expert opinions of 12 individuals who were working at three different universities in Turkey. After obtaining the recommendations of experts, the necessary changes were made. Then a pilot study was conducted with 418 teachers and principals from 10 randomly selected schools in Bolu. After the pilot study, the final form of the OHI was developed. For reliability, the SPSS reliability program (Nie, et al, 1975) was run and the Cronbach alpha reliability coefficient was found to have an alpha as 0.96.

After that, factor analysis was run. It was found that, the items were grouped under five different categories. In order to determine the Eigen values, Kiaser normalization was used and Eigen values above 1.62 were gathered. Factor loadings of items above .50 were taken and item size of the questionnaire, was reduced to 53. Final reliability coefficient was run and Cronbach alpha was found as .95. In order to determine each group's internal reliability, Cronbach alpha for each group was found. The name of each group and their reliability coefficient, Eigen values, variance, and total variance are as follows:

Table 6

Alpha and Eigen values of each dimensions

Names of Group	Reliability α	Eigen values	Variance (%)	Total variance
Organizational Leadership	.93	12.86	26.3	26.3
Organizational Integrity	.84	2.79	5.7	32.0
Environmental Interaction	.80	2.43	5.0	36.0
Organizational Identity	.74	2.07	4.2	41.0
Organizational Product	.72	1.62	3.3	44.5

The reliability and validity evidence obtained from the questionnaire indicates that this instrument could be used as a measure of the organizational health of the secondary schools in Bolu, Turkey.

Procedure

The OHI was sent to 838 participant from 34 schools and from 33 schools, 550 participants sent back the questionnaires. After coding each questionnaire 485 out of 550 questionnaires (406 teachers and 79 administrators, 2 missing value) were used for the analysis. Schools in the city were visited by the researcher and questionnaires were given to the teachers and administrators. Although the aim of the study is clearly stated at the cover page of the questionnaire, again the aim of the study was explained verbally, and specific information was given to teachers and administrators. The participants were asked to rate the items by putting the sign on one of the possible answer on the scale. For the rest of the schools, questionnaires sent to them and they were asked to complete and send back to my address. Overall, it took three months to collect all the data.

The researcher informed the subjects that she was only interested in the group results, any sign on the questionnaire about their identities was not to be considered, in case they wondered.

Analysis of the Data

In the data analysis, descriptive statistics, one-way analysis of variance, and independent t-test were used. Descriptive statistics were used for gathering information about the demographic characteristics of participants and frequency of items. One-way analysis of variance was used to find out the main differences among the various groups. This analysis was used for the variables teachers' educational background, job experience, branch, years that working at that school, and their opinions about items. On the other hand, to find out whether there is a significant difference between the main scores of male and female teachers and significant difference between main scores of teachers and administrators, independent t-test was used. All statistical analyses were accomplished by running descriptive statistics, t-test, and one-way analysis of variance subprograms of SPSS for windows.

Results of the Study

In order to find out the opinion of teachers and administrators related to organizational health, the Organizational Health Inventory developed under five dimensions: organizational leadership, organizational integrity, organizational identity, environmental interaction, and organizational product. After data collection, descriptive statistics was run. The frequency of all the items within each category were determined. Then, analyses were done in order to answer the subproblems:

1) Is there any significant difference between the opinions of teachers and school principals related to the organizational health of their school?

2) What is the organizational health profile of the each school? Is there any difference between health profiles related to dimensions? And is there any difference in terms of their health profiles between and among same type of schools?

3) Is there any significant difference between teachers' opinions related to the each dimension of organizational health of their schools with respect to their sex, level of education, job experience, branch, and working years at the same schools?

Dimensions of Organizational Health Inventory

In this study, a healthy school is described as a school that grows and develops within time by having effective leadership and effective communication and interaction among teachers, students, and administrators within school, as well as having effective environmental interaction with those outside of the school. In addition, a healthy school has an identity that makes it different from others and gives healthy products.

Organizational leadership. In a broader sense, leaders in a healthy school are able to set the aims and the objectives of the school, plan how to achieve these goals, use resources effectively to the realization of these aims, and control the process with the help and vision of the staff. In addition, a healthy school's leaders know how to operate the school effectively.

Organizational integrity. Organizational integrity means protecting schools from external destructive sources, while providing and developing an effective interaction among teachers, students, and administrators.

Environmental Integration. A healthy school has effective environmental and internal interactions adjusts to technological innovation, provides the various needs of society, and keeps the conflict in a minimum level.

Organizational Identity. A healthy school has a definable feeling, atmosphere, or milieu that differs from other schools. School identity also gives prediction about school and staff moral.

Organizational product. A healthy school gives continually feedback and providing necessary resources to generate healthy product.

Subproblem 1

Is there any significant difference between the opinions of teachers and school principals related to the organizational health of their school?

In order to find out if there is any significant difference between opinions of teachers and administrators, t-test was used. It was found that there is a significant difference between the opinions of teachers and administrators related to the

organizational health of their schools. The results showed that there is a significant difference between opinions of teachers and principals related to organizational leadership ($t=0.000$ $p<0.05$), organizational integrity ($t=0.001$, $p<0.05$), environmental interaction ($t=0.004$, $p<0.05$), and organizational products ($t=0.01$, $p<0.05$). On the other hand, it was found that there is no significant difference between opinions of teachers and administrators as related to organizational identity ($t=0.07$, $p>0.05$).

Subproblem II

What is the organizational health profile of the each school? Is there any difference between health profiles related to dimensions? And is there any difference in terms of their health profiles between and among same type of schools?

After analysing the first subproblem, each school's organizational health profile was gathered by using formula created and applied by Hoy, Tarter & Kottkamp (1991), Hoy & Tarter (1997), and Hoy, Sabo, & Associates (1998). Then schools are grouped and their health profiles compared according to their types, like General High Schools, Anatolian High Schools, Anatolian Vocational High School, and Vocational Schools (Anatolian high schools a kind of high schools where students are placed as a result of centralized exam and instruction is given in foreign language).

It was found that the health score for each dimension and each school was different. Because of the issue of confidentiality, the score of each individual school won't be given. However, Table 7 gives the minimum and maximum values for each dimension.

Table 7

Minimum and maximum values of each dimension

Dimensions	Minimum	Maximum	Average
1.Organizational Leadership	400.74	563.00	510.09
2. Organizational Integrity	427.76	549,40	520.29
3. Environmental Interaction	384.63	588.32	483.82
4. Organizational Identity	409.23	616.30	510.65
5. Organizational Product	434.10	600.28	510.77

Schools were first grouped as general high schools and vocational high schools, and their average organizational health profiles was compared. Table 8 provides the results of this comparison.

Table 8

Organizational health profiles of General High Schools and Vocational High Schools

SCHOOLS	Organizational Leadership	Organizational Integrity	Environmental Interaction	Organizational Identity	Organizational Product	Average
General HS	508.19	513.80	459.72	502.71	502.71	497.42
Vocational HS	496.27	493.65	444.33	498.91	499.08	486.44
Average	502.23	503.72	452.02	500.81	500.89	482.93

Then, schools were grouped according to the following categories: General High Schools, Anatolian High Schools, Anatolian Vocational High Schools, and Vocational High Schools.

Table 9

Organizational health profiles of General High Schools, Anatolian High Schools, Anatolian Vocational High Schools and Vocational High Schools

SCHOOLS	Organizational Leadership	Organizational Integrity	Environmental Interaction	Organizational Identity	Organizational Product	Average
General HS	511.54	537.50	475.29	500.08	512.13	507.29
Anatolian HS	497.57	485.07	410.65	475.54	470.23	467.81
Anatolian VHS	451.58	447.94	386.97	453.26	457.22	439.44
Vocational HS	499.06	497.38	448.05	501.63	500.91	489.47
Average	489.93	491.97	430.24	482.62	485.12	475.00

Subproblem III

Is there any significant difference between teachers' opinions related to the each dimension of organizational health of their schools with respect to their sex, level of education, job experience, branch, and working years at the same schools?

In order to find out if there is any significant difference between opinions of male and female teachers related to each dimension of the organizational health of their schools t-test was used. One-way analysis of variance was used in order to find out whether or not there is a significant difference between teachers' opinions related to the each dimensions of organizational health of their schools with respect to their sex, level of education, job experience, branch, and working years at the same schools. The findings will be given under each dimension.

Organizational Leadership

It was found that there is a significant difference between the opinions of male and female teachers related to organizational leadership dimension of organizational

health of their schools (t=0.003, p<0.05). There is no significant difference between teachers' opinions related to organizational leadership with respect to their branch (F=0.0718, p>0.05), job experience (F=0.7021, p>0.05), working years at the same schools (F=0.0838, p>0.05), and level of education (F=0.6657, p>0.05).

Organizational Integrity

It was found that there is no significant difference between the opinions of male and female teachers related to organizational integrity of organizational health of their schools (t=0.315, p>0.05). There is also no significant difference between teachers' opinions related to organizational integrity with respect to their branch (F=0.1705, p>0.05), job experience (F=0.3419, p>0.05), and level of education (F=0.9668, p>0.05). On the other hand, there is a significant difference between the opinions of teachers and their working years at the same schools (F=0.0089, p<0.05).

Environmental Interaction

It was found that there is no significant difference between the opinions of male and female teachers related to the environmental interaction dimension of organizational health of their schools (t=0.5176, p>0.05). There is no significant difference between teachers' opinions related to environmental interaction with respect to their branch (F=0.1079, p>0.05), job experience (F=0.0838, p>0.05), working years at the same schools (F=0.1866, p>0.05), and level of education (F=0.9942, p>0.05).

Organizational Identity

It was found that there is no significant difference between the opinions of male and female teachers related to the organizational identity dimension of organizational health of their schools ($t=0.351$, $p>0.05$). It was also found that there is no significant difference between teachers' opinions related to organizational identity with respect to their branch ($F=0.3460$, $p>0.05$), job experience ($F=0.9195$, $p>0.05$), working years at the same schools ($F=0.5942$, $p>0.05$), and level of education ($F=0.1641$, $p>0.05$).

Organizational Product

It was found that there is no significant difference between the opinions of male and female teachers related to the organizational product dimension of organizational health of their schools ($t=0.933$, $p>0.05$). There is also no significant difference between teachers' opinions related to organizational product with respect to their branch ($F=0.1491$, $p>0.05$), job experience ($F=0.1645$, $p>0.05$), working years at the same schools ($F=0.1881$, $p>0.05$), and level of education ($F=0.3631$, $p>0.05$).

Discussion

There has been an ongoing discussion in the literature about the ways of improving the quality of the school and student achievement. One of the essential characteristics of school leadership is the need for educational assessment in order to improve the quality of schooling (Wallace, 1992). Organizational Health Inventories have been used as tools for assessing the quality of schooling, as well as effectiveness and climate of the schools (Hoy, Sabo, & Associates, (1998); Hoy & Tarter (1997); Hoy & Hannum (1997); Hoy & Woolfolk (1993); Hoy, Tarter, & Kottkamp (1991); Hoy, Tarter, & Bliss (1990); Tarter, Hoy & Kottkamp (1990), and Hoy & Feldman (1987). In addition, Organizational Health Inventories have also been suggested for use in the change and innovation of schools by Miles (1965), Kimston & Sonnabend (1973), Kimston & Sonnabend (1975), Chicelli (1975), Ellsworth & Rickard (1978), and Clark & Fairman (1983). In this study, it is shown that Organizational Health Inventories can be used as one of the tools that can be used to determine the change and improvement needs of the schools because it can give a snapshot of the school (Hoy, Tarter, & Kottkamp, 1991). This study shows that some dimensions of some schools should be improved due to their health scores..

Up until now, some Organizational Health Inventories have been developed with different dimensions, such as Kimpston & Sonnabend's (1973; 1975) OHI dimensions (decision-making, interpersonal relationship, innovativeness, autonomy, school-community relations); Hubert's (1984) dimensions (morale, adaptiveness, optimal power utilization, cohesiveness, leadership and planning); Neugebaurer's (1990)'s dimensions

(planning and evaluation, motivation and control, group functioning, staff development, financial management, and environmental interaction); Hoy & Feldman's (1987) dimensions (institutional integrity, principal influence, consideration, initiation structure, resource support, morale, and academic emphasis). The dimensions of Organizational Health Inventory developed in this study combine of all these inventories. The OHI category of organizational integrity is similar to Hoy & Feldman's (1987) institutional integrity dimension. The organizational leadership dimension can be considered a combination of both principal influence and the initiation structure of dimensions of Hoy & Feldman's OHI and Hubert's (1984) leadership and planning dimension. The organizational identity dimension covers morale and consideration dimensions from Hoy & Feldman's (1987) OHI. Moreover, items similar to academic emphasis were grouped under the organizational product. Finally, the environmental interaction dimension is similar to Neugbeurar's (1990) environmental interaction and Hoy & Feldman's (1987), resource support dimension.

One of the important findings of this study is that the difference between the opinions of teachers and principals related to the organizational health of the schools. While the administrators mark the items that they believe occur "always" at their schools, teachers believe that some of them occur "sometimes" or "very rarely". So, there is a discrepancy between the beliefs related to the organizational health of their school. Hoy & Tarter (1997) found similar findings in the USA that there is a discrepancy between administrators and teachers perspectives related to school climate. This finding also shows that the organizational health profile of each school gives administrators the clues to where the problem is in order to go further change and improvement.

The average school profile provides criteria to compare his/her school with other school. If a school has lower scores than average in any dimension, it shows that is needs change and improvement. So, administrators can develop an improvement plan in building level to improve their schools. In this study, the average organizational health score was 507.02 with 14 schools scoring below this point. As for the scores of the organizational health dimensions, the average organizational leadership score was 510.09 with 13 schools scoring below this point. The average score for organizational integrity was 520.29 with 11 schools scoring below this point. The average score for the environmental interaction was 483.82 with 17 schools scoring below this point. For the organizational identity, the average score was 510.65 with 15 schools scoring below this point. Finally, the organizational product average score was 510.77 with 13 schools were below this point. When the average scores of dimensions were compared, organizational integrity had highest average score (520.29). By contrast, environmental interaction has the lowest average score (483.82). Other dimensions were more or less close to each other.

These results very clearly indicate that schools have problems with environmental interaction. The Turkish Education system is centralized and still education is seen as the job of the State, teachers, and principals. There is not much parental and community involvement to the schools and education on the local level. Since the system is centralized, schools that close the center get more attention and resources. Others that are away from the system do not get as much attention and care as schools closer to the center.

Conclusion

The organizational health inventory can be used for practical reasons as well as for further research study in Turkey. Although this research was the first study related to the organizational health of the secondary schools, it can be replicated to over the large population in different areas.

In addition, using this study as a base line, organizational health inventories for middle schools and elementary schools can also be developed and their health profiles can be determined. These profiles can be used either for practical reason, such as assessing the change and improvement needs, or just determining problems for the administrative practice. Moreover, in order to have more strong evidence about how the school works, organizational health measures should be supported with qualitative data which gives more descriptive and rich information about the school and its climate.

The findings of this study show that some schools have low scores in some of the outlined dimensions. These schools can be observed to triangulate what the quantitative data said and these dimensions should be determined after qualitative data. Schools that have low health scores should develop improvement plans and apply them immediately.

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